AUDIT REPORT



2023

Security Assessment **Dr.Octopus Token**

June 19, 2023

Audit Status: Pass

Audit Edition: Advance





Risk Analysis

Classifications of Manual Risk Results

| Classification | Description | | |
|---------------------------------|----------------------------------|--|--|
| Critical | Danger or Potential Problems. | | |
| Major | Be Careful | | |
| Minor | Pass, Not-Detected or Safe Item. | | |
| Informational | Function Detected | | |

Manual Code Review Risk Results

| | | | Ш |
|------------------------|--------------------------------------|---|---|
| Contract Priviledge | Description | | |
| Can mint? | Pass | | |
| Edit taxes over 25%? | Pass | | |
| Max Tx? | Pass | | |
| Max Wallet? | Pass | | |
| Has to enable trading? | SAFU Developer has to enable trading | | |
| Modify Tax | Pass | | |
| Can blacklist? | Pass | | |
| Is Honeypot? | Liquidity has not been added | | |
| Trading Cooldown | Not Detected | | |
| Can Pause Trade? | Pass | 6 | Ī |

Not Detected



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| Contract Priviledge | Description | |
| ● Is Proxy?? | Not Detected | |
| ○ Is Anti Whale? | Not Detected | |
| Is Anti Bot? | Not Detected | MIII |
| Is Blacklist? | Not Detected | |
| Blacklist Check | Pass | |
| is Whitelist? | Not Detected | |
| Buy Tax | 0 | |
| Sell Tax | 2 | |
| Can Take Ownership? | Not Detected | |
| Hidden Owner? | Not Detected | |
| Owner | 0x0c90455ab27754e2be6cab1129bff6022e32 | 28737 |
| Self Destruct? | Not Detected | |
| Other? | Not Detected | |
| Other? | Not Detected | |
| Holders | 1 | |
| Auditor Confidence | Medium | |

The following quick summary it's added to the project overview; however, there are more details about the audit and its results. Please read every detail.







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Assessment Summary

This report has been prepared for Dr.Octopus Token on the Binance Smart Chain network. AnalytixAudit provides both client-centered and user-centered examination of the smart contracts and their current status when applicable. This report represents the security assessment made to find issues and vulnerabilities on the source code along with the current liquidity and token holder statistics of the protocol.

A comprehensive examination has been performed, utilizing Cross Referencing, Static Analysis, In-House Security Tools, and line-by-line Manual Review.

The auditing process pays special attention to the following considerations:

- Testing the smart contracts against both common and uncommon attack vectors.
- Inspecting liquidity and holders statistics to inform the current status to both users and client when applicable.
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Verifying contract functions that allow trusted and/or untrusted actors to mint, lock, pause, and transfer assets.
- Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders





Project Overview

Token Summary

| Parameter | Result |
|---------------|---|
| Address | 0xBB9f9072B12b33c5e772Be6E69a008befbB94093 |
| Name | Dr.Octopus |
| Token Tracker | Dr.Octopus (Octopus) |
| Decimals | 9 |
| Supply | 420,690,000,000 |
| Platform | Binance Smart Chain |
| compiler | v0.8.17+commit.8df45f5f |
| Contract Name | DrOctopus |
| Optimization | No |
| LicenseType | MIT |
| Language | Solidity |
| Codebase | https://bscscan.com/address/0xBB9f9072B12b33c5e772Be6E 69a008befbB94093#code |
| Payment Tx | Corporate |







Project Overview

Simulation Summary

| Parameter | Result |
|-----------------------|--------|
| Transfer From Owner | Pass |
| Transfer From Holder | Pass |
| Add Liquidity | Pass |
| RemoveLiquidity | Pass |
| Buy from Owner | Pass |
| Buy from Holder | Pass |
| Sale from Owner | Pass |
| Sale from Holder | Pass |
| Remove Liquidity | Pass |
| SwapAndLiquify | Pass |
| SwapAndSale w/Fee | Pass |
| SwapAndSale TX | |
| SwapAndSaleNoFee | Pass |
| SwapAndSale No/Fee TX | |
| ExcludeFromFees | Pass |



PinkSale



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|------------------|--------|---|
| Parameter | Result | 9 |
| Pool Creation | Pass | |
| Pool Creation TX | | |
| Pool Finalize | Pass | |
| Pool Finalize TX | | |
| Enable | Pass | |

The following quick summary it's added to the project overview; however, there are more details about the audit and its results. Please read every detail.











TestNet Contract was Not Assessed

Solidity Code Provided

| SoliD | File Sha-1 | FileName |
|---------|---|-------------|
| Octopus | 9eb45379dccf041954c13960d4e559933834c11 | Octopus.sol |
| Octopus | | |
| Octopus | | |
| Octopus | | |









The Project Owners of Dr.Octopus is not KYC.

KYC Information Notes:

Auditor Notes: No info founde

Project Owner Notes:









Smart Contract Vulnerability Checks

The Smart Contract Weakness Classification Registry (SWC Registry) is an implementation of the weakness classification scheme proposed in EIP-1470. It is loosely aligned to the terminologies and structure used in the Common Weakness Enumeration (CWE) while overlaying a wide range of weakness variants that are specific to smart contracts.

| weakness variants that are specific to smart contracts. | | | | |
|---|----------|---|-------------|-----------|
| ID | Severity | Name | File | location |
| SWC-100 | Pass | Function Default Visibility | Octopus.sol | L: 0 C: 0 |
| SWC-101 | Pass | Integer Overflow and Underflow. | Octopus.sol | L: 0 C: 0 |
| SWC-102 | Pass | Outdated Compiler Version file. | Octopus.sol | L: 0 C: 0 |
| SWC-103 | Pass | A floating pragma is set. | Octopus.sol | L: 0 C: 0 |
| SWC-104 | Pass | Unchecked Call Return Value. | Octopus.sol | L: 0 C: 0 |
| SWC-105 | Pass | Unprotected Ether Withdrawal. | Octopus.sol | L: 0 C: 0 |
| SWC-106 | Pass | Unprotected SELFDESTRUCT Instruction | Octopus.sol | L: 0 C: 0 |
| SWC-107 | Pass | Read of persistent state following external call. | Octopus.sol | L: 0 C: 0 |
| SWC-108 | Pass | State variable visibility is not set | Octopus.sol | L: 0 C: 0 |
| SWC-109 | Pass | Uninitialized Storage Pointer. | Octopus.sol | L: 0 C: 0 |
| SWC-110 | Pass | Assert Violation. | Octopus.sol | L: 0 C: 0 |



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|----------------|---------|----------|--|-------------|-----------|
| | ID | Severity | Name | File | location |
| | SWC-111 | Pass | Use of Deprecated Solidity Functions. | Octopus.sol | L: 0 C. |
| | SWC-112 | Pass | Delegate Call to Untrusted Callee. | Octopus.sol | L: 0 C: 0 |
| | SWC-113 | Pass | Multiple calls are executed in the same transaction. | Octopus.sol | L: 0 C: 0 |
| | SWC-114 | Pass | Transaction Order Dependence. | Octopus.sol | L: 0 C: 0 |
| | SWC-115 | Pass | Authorization through tx.origin. | Octopus.sol | L: 0 C: 0 |
| | SWC-116 | Pass | A control flow decision is made based on The block.timestamp environment variable. | Octopus.sol | L: 0 C: 0 |
| | SWC-117 | Pass | Signature Malleability. | Octopus.sol | L: 0 C: 0 |
| | SWC-118 | Pass | Incorrect Constructor Name. | Octopus.sol | L: 0 C: 0 |
| | SWC-119 | Pass | Shadowing State Variables. | Octopus.sol | L: 0 C: 0 |
| | SWC-120 | Pass | Potential use of block.number as source of randonmness. | Octopus.sol | L: 0 C: 0 |
| | SWC-121 | Pass | Missing Protection against Signature Replay Attacks. | Octopus.sol | L: 0 C: 0 |
| | SWC-122 | Pass | Lack of Proper Signature Verification. | Octopus.sol | L: 0 C: 0 |
| | SWC-123 | Pass | Requirement Violation. | Octopus.sol | L: 0 C: 0 |
|) _A | SWC-124 | Pass | Write to Arbitrary Storage Location. | Octopus.sol | L: 0 C: 0 |
| | SWC-125 | Pass | Incorrect Inheritance Order. | Octopus.sol | L: 0 |



| ID | Severity | Name | File | location |
|---------|----------|--|-------------|-----------|
| SWC-126 | Pass | Insufficient Gas Griefing. | Octopus.sol | L: 0 C 0 |
| SWC-127 | Pass | Arbitrary Jump with Function Type Variable. | Octopus.sol | L: 0 C: 0 |
| SWC-128 | Pass | DoS With Block Gas Limit. | Octopus.sol | L: 0 C: 0 |
| SWC-129 | Pass | Typographical Error. | Octopus.sol | L: 0 C: 0 |
| SWC-130 | Pass | Right-To-Left-Override control character (U +202E). | Octopus.sol | L: 0 C: 0 |
| SWC-131 | Pass | Presence of unused variables. | Octopus.sol | L: 0 C: 0 |
| SWC-132 | Pass | Unexpected Ether balance. | Octopus.sol | L: 0 C: 0 |
| SWC-133 | Pass | Hash Collisions with Multiple Variable Length Arguments. | Octopus.sol | L: 0 C: 0 |
| SWC-134 | Pass | Message call with hardcoded gas amount. | Octopus.sol | L: 0 C: 0 |
| SWC-135 | Pass | Code With No Effects (Irrelevant/Dead Code). | Octopus.sol | L: 0 C: 0 |
| SWC-136 | Pass | Unencrypted Private Data On-Chain. | Octopus.sol | L: 0 C: 0 |

We scan the contract for additional security issues using MYTHX and industry-standard security scanning tools.







Inheritance

The contract for Dr.Octopus has the following inheritance structure.

The Project has a Total Supply of 420,690,000,000,000





Smart Contract Advance Checks

| ID | Severity | Name | Result | Status |
|------------|---------------|--|--------|-----------|
| Octopus-01 | Minor | Potential Sandwich Attacks. | Pass | Not-Found |
| Octopus-02 | Minor | Function Visibility Optimization | Pass | Not-Found |
| Octopus-03 | Minor | Lack of Input Validation. | Pass | Not-Found |
| Octopus-04 | Major | Centralized Risk In addLiquidity. | Pass | Not-Found |
| Octopus-05 | Minor | Missing Event Emission. | Pass | Not-Found |
| Octopus-06 | Minor | Conformance with Solidity Naming Conventions. | Pass | Not-Found |
| Octopus-07 | Minor | State Variables could be Declared Constant. | Pass | Not-Found |
| Octopus-08 | Minor | Dead Code Elimination. | Pass | Not-Found |
| Octopus-09 | Major | Third Party Dependencies. | Pass | Not-Found |
| Octopus-10 | Major | Initial Token Distribution. | Pass | Not-Found |
| Octopus-11 | Major | Complexity on the tax calculations. | Pass | Not-Found |
| Octopus-12 | Major | Centralization Risks In The X Role | Pass | Not-Found |
| Octopus-13 | Informational | Extra Gas Cost For User | Pass | Not-Found |
| Octopus-14 | Medium | Unnecessary Use Of SafeMath | Pass | Not-Found |
| Octopus-15 | Medium | Symbol Length Limitation due to Solidity Naming Standards. | Pass | Not-Found |



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|------------|---------------|---|--------|-----------|
| ID | Severity | Name | Result | Status |
| Octopus-16 | Medium | Invalid collection of Taxes during Transfer. | Pass | Not-Found |
| Octopus-17 | Informational | Conformance to numeric notation best practice. | Pass | Not-Found |
| Octopus-18 | Informational | Enable Trade and Exclude Exist to create a whitelist. | Pass | Not-found |







Technical Findings Summary

Classification of Risk

| Severity | Description | |
|--------------------------|--|--|
| Critical | Risks are those that impact the safe functioning of a platform and must be addressed before launch. Users should not invest in any project with outstanding critical risks. | |
| Major | Risks can include centralization issues and logical errors. Under specific circumstances, these major risks can lead to loss of funds and/or control of the project. | |
| Medium | Risks may not pose a direct risk to users' funds, but they can affect the overall functioning of a platform | |
| Minor | Risks can be any of the above but on a smaller scale. They generally do not compromise the overall integrity of the Project, but they may be less efficient than other solutions. | |
| 1 Informational | Errors are often recommended to improve the code's style or certain operations to fall within industry best practices. They usually do not affect the overall functioning of the code. | |

Findings

| Severity | Found | Pending | Resolved |
|---------------------------------|-------|---------|----------|
| Critical | 0 | 0 | 0 |
| Major | 0 | 0 | 0 |
| Medium | 0 | 0 | 0 |
| Minor | 0 | 0 | 0 |
| Informational | 0 | 0 | 0 |
| Total | 0 | 0 | 0 |





Social Media Checks

| Social Media | URL | Result |
|-----------------|----------------------------------|--------|
| Twitter | https://twitter.com/droctopusxyz | Pass |
| Other | | Fail |
| Website | https://dr-octopus.xyz/ | Fail |
| Telegram | https://t.me/DROCTOPUSGLOBAL | Pass |

We recommend to have 3 or more social media sources including a completed working websites.

Social Media Information Notes:

Auditor Notes: undefined

Project Owner Notes:









Assessment Results

Score Results

| Review | Score |
|---------------------|--------|
| Overall Score | 86/100 |
| Auditor Score | 90/100 |
| Review by Section | Score |
| Manual Scan Score | 32/53 |
| SWC Scan Score | 37 /37 |
| Advance Check Score | 17 /19 |

The Following Score System Has been Added to this page to help understand the value of the audit, the maximun score is 100, however to attain that value the project most pass and provide all the data needed for the assessment. Our Passing Score has been changed to 80 Points, if a project does not attain 80% is an automatic failure. Read our notes and final assessment below.

Audit Passed











Important Notes:

- No High-Risk Issues or vulnerabilities were found.
- Always DYOR on the project itself.

Auditor Score = 90 Audit Passed





Appendix



Finding Categories

Centralization / Privilege

Centralization / Privilege findings refer to either feature logic or implementation of components that actagainst the nature of decentralization, such as explicit ownership or specialized access roles incombination with a mechanism to relocate funds.

Gas Optimization

Gas Optimization findings do not affect the functionality of the code but generate different, more optimalEVM opcodes resulting in a reduction on the total gas cost of a transaction.

Logical Issue

Logical Issue findings detail a fault in the logic of the linked code, such as an incorrect notion on howblock.timestamp works.

Control Flow

Control Flow findings concern the access control imposed on functions, such as owneronly functionsbeing invoke-able by anyone under certain circumstances.

Volatile Code

Volatile Code findings refer to segments of code that behave unexpectedly on certain edge cases that mayresult in a vulnerability.

Coding Style

Coding Style findings usually do not affect the generated byte-code but rather comment on how to makethe codebase more legible and, as a result, easily maintainable.

Inconsistency

Inconsistency findings refer to functions that should seemingly behave similarly yet contain different code, such as a constructor assignment imposing different require statements on the input variables than a setterfunction.

Coding Best Practices

BRC 20 Conding Standards are a set of rules that each developer should follow to ensure the code meet a set of creterias and is readable by all the developers.



Disclaimer

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